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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,719	03/19/2004	Nusrallah Jubran	3216.58US02	7514

24113 7590 08/02/2007  
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MINNEAPOLIS, MN 55402-2100

EXAMINER
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NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

MAIL DATE	DELIVERY MODE
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08/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/804,719	<b>Applicant(s)</b> JUBRAN ET AL.	
	<b>Examiner</b> Janis L. Dote	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-14,17-19,28 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-14,17,18,28,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 6, 19, and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The examiner acknowledges the amendments to claims 1, 11, and 23 filed on May 29, 2007. Claims 1, 4-14, 17-19, 28, and 31-33 are pending.

2. The objection to the specification set forth in the office action mailed on Feb. 27, 2007, paragraph 5, has been withdrawn in response to the amended paragraph beginning at page 20, line 7, of the specification, filed on May 29, 2007.

The rejections of claims 1, 4, 5, 7-14, 17, 18, 28, 31, and 32 under 35 U.S.C. 112, first paragraph, set forth in the office action mailed on Feb. 27, 2007, paragraph 7, have been withdrawn in response to the amendments to claims 1, 11, and 23 filed on May 27, 2007.

3. Applicants' claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional applications upon which priority is claimed fail to provide adequate support under 35 U.S.C. 112 for claims 1-19 and 28-33 of this application for the reasons discussed in the office action mailed on May 31, 2006, paragraph 4, which are incorporated herein by reference.

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4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 4, 5, 8, 9, 11-14, 17, 18, 28, 31, and 32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of copending Application No. 10/900,785 (Application'785), as evidenced by that portion of the disclosure in Application'785 that supports the subject matter recited in the claims of Application'785.

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The examiner notes that the issue fee in Application 10/900,785 was filed on Jul. 19, 2007.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter recited in Application '785 renders obvious the subject matter recited in the instant claims.

Reference claim 8, which depends from reference claim 7, which depends from reference claim 1, recites an organophotoreceptor comprising a photoconductive element and an electrically conductive substrate, where the photoconductive element comprises a charge generation material and a charge transport compound. Reference claim 9, which depends from reference claim 1, requires that the photoconductive element further comprise a second charge transport material, which meets the second charge transport material limitation recited in instant claims 8 and 9. Reference claim 19, which depends from reference claim 18, which depends from reference claim 12, recites an electrophotographic imaging apparatus comprising a light imaging component and an organophotoreceptor comprising a photoconductive element and an electrically conductive substrate, where the photoconductive element comprises a charge generation material and a charge transport compound. Reference claim 22, which depends from reference claim 12, requires that

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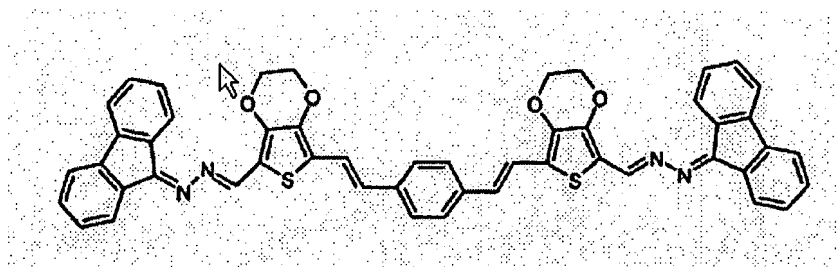
the apparatus further comprise a toner disperser, which meets the toner disperser component recited in instant claim 12. Reference claim 20, which depends from reference claim 12, requires that the photoconductive element further comprise a second charge transport material, which meets the second charge transport material limitation recited in instant claims 13 and 14. Reference claim 42, which depends from reference claim 41, which depends from reference claim 35, recites a charge transport compound.

The charge transport compound recited in reference claims 8, 19, and 42, is represented by the formula recited in reference claims 1, 12, and 35, respectively, where the group  $R_1$  is represented by either of the two formulas recited in reference claims 7, 18, and 41, and the Z groups in those two formulas can be the azine-containing-9-fluorenylidene group (i.e., the third formula) recited in reference claims 8, 19, and 42. Reference claims 5, 16, and 27, which depend from reference claims 1, 12, and 35, respectively, require that the group Y in the charge transport compound formula recited in instant claims 1, 12, and 25, be a fluorenylidenyl group and  $R_3$  be a bond between Y and the carbon atom adjacent to Y. The claims of Application '785 do not explicitly recite any examples of the charge transport material. However, that portion of

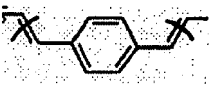
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Application'785 that supports the charge transport material of the formula recited in the reference claims teaches that such a charge transport material can be represented by chemical formula (3) at page 24 of Application'785.

Chemical formula (3) is:



The compound represented by chemical formula (3) comprises a

1,4-phenylenedimethyldiyne group, , which is one of the members of the "X" Markush recited in instant claims 1, 11, and 28. Accordingly, that charge transport material meets the charge transport formula recited in reference claims 1, 4, 5, 11, 17, 18, 28, 31, and 32. When addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in a patent, "those portions of the specification which support the patent claims may be also be examined and considered." See MPEP 804,II.B.1, p. 800-22, citing In re Vogel, 164 USPA 619, 622 (CCPA 1970). Application'785

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compound (3) meets the charge transport material formula recited in the instant claims.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter recited in the claims of Application'785, as evidenced by that portion of the disclosure in Application'785 that supports the subject matter recited in the claims of Application'785, to make and use a charge transport material that is within the compositional limitations of the formula recited in the instant claims, and to use the resultant compound as the charge transport material in the organophotoreceptor and in the imaging apparatus recited in the claims of Application'785. That person would have had a reasonable expectation of successfully obtaining a charge transport compound that is capable of transporting charges in an organophotoreceptor, and an organophotoreceptor and an electrophotographic imaging apparatus that are capable of being used in an electrophotographic process to provide toned images.

6. Claims 7 and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 35-42 of copending Application'785, as evidenced by that portion of the disclosure in Application'785 that supports the subject matter recited in



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the claims of Application'785, in view of Diamond, Handbook of Imaging Materials, pp. 395-396.

The subject matter recited in the claims of Application'785, as evidenced by that portion of the disclosure in Application'785 that supports the subject matter recited in the claims of Application'785, renders obvious the organophotoreceptor as described in paragraph 5 above, which is incorporated herein by reference. In addition, reference claim 11, which depends from reference claim 1, further requires that the photoconductive layer in the organophotoreceptor further comprise a binder.

The reference claims of Application'785 do not recite that the photoconductive element comprises a charge generation layer comprising the charge generation material and a polymeric binder and a charge transport layer comprising the charge transport compound and a polymeric binder as recited in instant claim 7. Nor do the claims recite that the organophotoreceptor comprises a flexible belt or a drum to support the electrically conductive substrate as recited in instant claim 10.

However, multi-layered photoconductive elements and the use of a flexible belt or drum in organophotoreceptors are well known in the electrophotographic arts. Diamond discloses that photoreceptor fabrication involves the sequential application of

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one or more layers. Page 395, lines 10-11. Figure 9.7 in Diamond illustrates a "typical photoreceptor cross section." The photoreceptor in Figure 9.7 comprises a charge generation layer and a charge transport layer. Diamond discloses that the photoconductive layer can equally be a single layer that functions as both a charge generation and a charge transport layer. Page 395, lines 25-27. Diamond further discloses that the support of the photoreceptor can be a metal cylinder, i.e. a drum, or a flexible belt. Page 395, lines 12-13, and page 396, lines 4-9.

It would have been obvious for a person having ordinary skill in the art, in view of teachings in Diamond and the subject matter recited in the reference claims of Application'785, as evidenced by that portion of the disclosure in Application'785 that supports the subject matter recited in the claims of Application'785, to make and use a photoconductive element comprising a charge generation layer comprising the charge generation material and a polymeric binder and a charge transport layer comprising the charge transport material and a polymeric binder as recited in instant claim 7, and to use a metal cylinder or a flexible belt to support the electrically conductive substrate in the organophotoreceptor rendered obvious over the claimed subject matter recited in Application'971.

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That person would have had a reasonable expectation of successfully obtaining an organophotoreceptor that is capable of being used in an electrophotographic process to provide toned images.

7. In the response filed on May 29, 2007, applicants did not address the rejections over Application 10/900,785. Applicants state that they "defer submitting a response at this time and reserve the right to respond to the rejection at some future time."

Because applicants did not provide any arguments traversing the rejections, the rejections stand.

8. Claims 6, 19, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest the charge transport material selected from the Markush group recited in those claims.

9. This office action was not made final because of the rejection of claims 4, 17 and 31 in paragraph 5 above.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLD

Jul. 23, 2007

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